

IN THE CLAIMS:

Amend claims 40, 43 - 46, 48 - 50, 52 - 56, and 58 - 61 as shown in the attached appendix containing marked-up copies and clean copies of the aforesaid claims.

REMARKS

Re-examination and favorable reconsideration in light of the above amendments and the following comments are respectfully solicited.

Claims 40 - 61 are pending in the application. Currently, all claims stand rejected. By the present amendment, claims 40, 43 - 46, 48 - 50, 52 - 56, and 58 - 61 have been amended.

In the office action dated August 6, 2001, claim 48 was rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which allegedly was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s) at the time the application was filed had possession of the claimed invention.

Further, in said action, claims 40 through 61 were similarly rejected, and claim 48 was rejected under 35 U.S.C. 102(b) as being and 43 - 46 were rejected under 35 U.S.C. 102(b) as being

anticipated by Brasserie Achouffe in light of Ashurst, and claims 40 and 42 were rejected under 35 U.S.C. 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. 103(a) as being unpatentable over the allegedly well known mixed drink "Snakebite".

The foregoing rejections have been traversed by the above amendments and the following comments.

With regard to the amendment under 35 U.S.C. 112, first paragraph, the present amendment obviates same by deleting the word "protein" and substituting the word "beer" in its place. As noted by the Examiner in the office action, the specification recites "beer particles". For the record however, Applicants note that beer has a notoriously complex chemistry. Accordingly, while "protein particles" is accurate in one sense of the present invention, it remains the case that suspended particulates in beer can also be properly described using the more cosmopolitan reference to "beer particles". It is Applicants' position that the terms as used in the specification and claims provide the requisite and reasonable description that is called for under 35 U.S.C.

Either and both terms appropriately reflect the reality of

the referenced particulates. Reconsideration and withdrawal of the rejection is respectfully requested.

With regard to the rejection under 35 U.S.C. 112, second paragraph, the Examiner has objected to the terminology "low temperature" and "room temperature" as being indefinite. It is submitted that when these terms are read in light of the specification, instead of a vacuum, the meaning of the terms are readily understood by those of skill in the art. Further, in general, claim language that introduces relative terminology (as in terms of degree) do not necessarily render the claim indefinite (and hence unpatentable under the provisions set in section 112. See In re Chandler, 117 USPQ 361, 364 (CCPA 1958).

The courts have set the standards for determining the threshold issues concerning the permissible use of such terminology. See Seattle Box Car v. Industrial Crating and Packing, 221 USPQ 568 (Fed. Cir. 1984) and Allergan v. Pharmacia & Upjohn, 42 USPQ 2d 1560, 1563 (S.D. Cal. 1997).

The general rule begins with the notion that mathematical precision should not be imposed for its own sake and that a patentee has the right to claim the invention in terms that

are sufficiently definite to distinguish the invention from the prior art.

Commission, 37 USPQ 2d 1609, 1617 (Fed Cir. 1996)) "low

"Temperature", in particular, relates to the use of the word "low". The Court in ZMI Corp. v. Cardiac Resuscitator, 2 USPQ 2d 1985, 1989 (D. Ore. 1987), mod., 6 USPQ 2d 1557 (Fed. Cir. 1988), allowed that the use of the term did not render the claim indefinite unless a person of ordinary skill in the art would not be able to determine from the claim what would be infringing and would not be infringing and any and all putative vagueness resulting from the use of non numerical terms could *ab initio* dispelled given when the character of the invention and the context of the art left no doubt as to the functional nature of the limitation. It is Applicants' position that in the context of the present invention and given the nature of the art of brewing chemistry, the use of the term "low" is fairly based. The Applicant takes some comfort in the fact that USPTO practice reflects these standards, as evidenced by the issued claims of USP 4,430,925 and 4,445,020 with regard to "low pressure"; 4,386,978 with regard to "low particular weight"; and 4,431,137 with regard to "low solubility".

Room temperature is if anything a more precise

was asked in the Allergan case. This term can be found in

the claims of a number of issued U.S. patents - See USP 3,851,013; 3,853,520; 3,853,640; 3,853,642; 3,855,266; 3,855,284; 4,057,614; 3,923,516; 3,923,530; 4,057,408; 4,058,480; and 4,058,641.

Despite the errors in the position taken by the Examiner, Applicants have elected to delete these terms from the claims and have inserted specific temperatures instead, which temperatures are disclosed in the specification.

The Examiner has objected to claims 43 - 46, 48, 52 - 55 and 58 - 61 because of the presence of the word "about". The propriety of the use of the expression "about" in claims to permit some flexibility is established by long practice in the USPTO. See the article by P.G. Dilworth "About 'about' and Other Imprecise Claim Terms", 78 JPTOS 423 (1996). Perhaps most to the point is the fact that the term is not broad or arbitrary, but rather is a flexible term with a meaning similar to "approximately". As a matter of law ,the term "about" is a clear warning that exactitude is not claims but rather a contemplated variation. See Syntex USA v. Paragon Optical, 7 USPQ 2d

chosen to eliminate this matter from appeal by deleting the word "about" from each of these claims.

Claims 40, 49 and 50 have been objected to as being indefinite because the scope of the phrases "beverage of the beer type" is allegedly unknown. Again, when this phrase is read in light of the specification, the meaning becomes apparent; however, to mollify the Examiner, Applicants have amended claims 40, 49 and 50 to delete use of the phrase "of the beer type".

Claims 50 and 56 have been amended to provide antecedent basis for all claimed elements.

Claims 51 and 57 further define the invention in that they talk about adding a particular pectin E 440, whereas their parent claims talk about adding any pectin. With regard to the averment by the Examiner that the application only has support for pectin E440, this is not true. The description in the instant application clearly discloses at page 6, lines 25 to 31, that pectin may be used in the form of a crude or impure source as well as in the form of an industrial product such as pectin E440.

Claims 40, 41 and 43 - 49 have been rejected under 35

rejection is only appropriate where all the limitations of

the claim(s) can be found in a single reference. Since the Examiner has relied on two references, it can only be concluded that neither reference anticipates the invention claimed in claims 40, 41, and 43 - 49. Still further, the Brasserie Achouffe document is not available as a reference. The instant application is based on a PCT application which bears a filing date of October 31, 1996, which is prior to the May 23, 2001 date contained on the publication. Should the Examiner choose to rely on the 1997 copyright date on the document, there are still three problems. First, the copyright date (1997) is after the PCT filing date. Second, the copyright date is not necessarily the date on which a publication becomes available to the public. Third, it is not clear what material is protected by the 1997 copyright in view of the fact that there is a 1998 update.

Still further, the Examiner misreads the Brasserie Achouffe document. The document does not say that the Aubel beer is made by adding 8% apple juice to the beer to induce the secondary fermentation. The document says that "[i]nstead of adding invert sugar for the secondary

Neither cited and applied reference teaches or suggests the claimed invention. Neither reference teaches or suggests adding pectin E440 in a predetermined proportion in order to inhibit coagulation and precipitation of proteins as set forth in claim 40. In fact, neither reference is enabling in so far as teaching a method for preparing a fermented beverage from a beer wort because neither reference teaches or describes any such method.

With regard to claim 41, this claim discloses introducing pectin in a hot wort. Assuming arguendo that the Examiner is correct about the teachings of Brasserie Achoffe, it should be noted that secondary fermentation is a step which takes place at about zero degrees centigrade, after the primary fermentation which takes place at a temperature between eight degrees centigrade and twenty five degrees centigrade approximately. Fermentation can not take place with a hot wort because yeasts are destroyed in a heated condition. See for instance the attached schematic diagram found in GRAND DICTIONNAIRE ENCYCLOPEDIQUE LAROUSSE which gives the following

filtered (13), then cooled at 6°C (14), then oxygenated and

yeasts are added (15). Primary fermentation takes place in (16), then yeasts are extracted in (17). Then beer is cooled at 0°C in cooler (18) before secondary fermentation which takes place in (19) before storage (20). A last filtration will take place (21) at the moment of extracting the finished beer."

With regard to claims 43 - 49, the cited references do not teach or suggest the claimed proportions of claims 43 - 46, the proportion varying step of claim 47, the pectin adding step of claim 48, and/or the fermented beverage of claim 49 made by the method of claim 40.

The Examiner's argument about the limitations of the Patent Office is duly noted; however, it is not germane to the issues at hand since the claims are primarily directed to a method.

It should be noted that the method of the present invention which combines pectin and beer is quite novel and unobvious since the use of pectin in beer according to the present invention in order to support a stable artificial haze is the antithesis of the desire (and steps taken in the apple juice and the cider arts) to expunge pectin from

the juice or cider in order to obtain a clear, pale and low degree of clarity in the final beverage. Even if some

pectin may theoretically be found in apple juice or cider, it is clear from Ashurst and from the known apple juice and cider arts that the pectin proportion in the industrially and commercially available cider or apple juice will be most probably closer to zero than to values of a few percent found in very particular cases by authors named by Ashurst and presented by said authors as variable, unstable and unreliable.

Apple juice is prepared for a variety of purposes and from three general apple types: cider apples, culinary (cooking) apples and dessert apples. Both cider apples and culinary apples are characteristically low in soluble pectin content - so much so that in many cases the use of pectinase is not necessarily required to liberate the juice from the apples. Dessert apples on the other hand are indeed of a very high pectin content - so much so that in extraction of the juice from the fruit, supplemental and exogenous pectinase (that is over and above the indigenous levels of pectin methyl esterase that the fruit itself contains) is added so that the juice can be effectively liberated from the pulp. Cider is made from apple juice

and may be made with culinary, cooking, or dessert apples, with culinary apple juices and dessert apple juices.

During the production of cider, a thick brown jelly consisting of a calcium pectinate clot commonly develops and ultimately breaks up, in the process removing with it yeast cells and other particulates in a natural clarification process. Moreover, subsequent pasteurization of fermented cider entails the further addition of even more pectinase for the express purpose of maintaining the resulting beverages clarity. Accordingly, it is clear on the face of the prior art that the pectin in apple juice (and by extension cider too) is largely and quite deliberately broken down - all in the attempt to ensure that the undesirable pectin content, that is regarded as a technological nuisance, is removed to a degree wherein the beverage remains clear. That being the case, there is no evidence of any inherent anticipation on the face of the cited prior art reference, the Ashurst juice is not a suitable source of pectin for the present invention. The concentrations of pectin as recited by Ashurst are plainly in relation to fresh apple juice per se. That is hardly probative for the purposes of section 102(b) where Ashurst is relied upon as part of a combination of references that

support a finding of anticipation of the claimed invention in the secondary fermentation of a beer product.

The Examiner makes the point that Applicants' disclosure contemplates the addition of pectin for the purposes of the presently claimed invention as including crude fruit extracts as sources/carriers. This is true of course but only if and to the extent that such activity would indeed result in the addition at all or at the very least in the requisite amounts for achieving the functional results as recited in the Applicants' claims. Persons skilled in the art, and in light of the Applicants' teachings, would have all of the necessary knowledge and skill to make appropriate use of the available sources. In the apple juice art, however, it is clear that the presence of pectinase (both indigenous and exogenous) results in pectin being broken down through the spontaneous clarification or the action of the added enzymes - and specifically and deliberately because pectin is an undesirable component. When we look at the posited combination of references, what we see on the one hand is a combination that states that pectin is largely broken down which makes its availability in the apple-supplemented beer fermentation of the second reference very suspect - and on

undoubtedly go through a process not unlike the filter

process in which the pectin will go through a calcium pectinate clotting process and at least to that extent will not thereafter be available for the purposes of the presently claimed invention. So in summary, the prior art 35 U.S.C. 103 combination of references: (a) reveals that endogenous apple enzymes inevitably reduce the pectin content of the apple juice; (b) explains that the native pectin content will be further and quite deliberately reduced during processing, as a result of the addition of exogenous enzymes to ensure the production of a clear (i.e. not cloudy) beverage; and (c) indicates that during the secondary fermentation, in a reaction analogous to the keeving/defecation cider fermentation process, there would be an even further reduced pectin content (if any remains at all), in the final beer. How can any such negative cascade of disclosures form an appropriate basis for a rejection of alleged anticipation? It is Applicants' position that it simply cannot and reconsideration and withdrawal of the rejection over Brasserie Aschoffe and Ashurst is therefore requested.

Combinations of references are at best a chancy basis

especially the case where a combination is relied upon in

support of allegations of anticipation. This remains true even in the special case of alleged applicability of the doctrine of inherency to the 35 U.S.C. 102 standard. Moreover, the combination of pectin and beer (quite apart from any issues relating to the source or even the carrier of the pectin) is demonstrated by these presents to be unobvious, since the use of the pectin in the beer according to the present invention in order to support a stable artificial haze, is the antithesis of the desire (and steps taken in the apple juice and the cider arts) to expunge pectin from the juices during processing in order to extract sufficient juice yield from the fruit and to secure a high and stable degree of clarity in the final beverage; and in the case of cider particularly over the course of the natural clarification process.

Nothing in the cited and applied references discloses or suggests that a stable and persistent permanent haze or reversible haze may be obtained by adding pectin in an adequate proportion corresponding to the conditions evocated in claim 47.

With regard to the rejection of claims 40 and 42 over Examiner has not provided any literature, dated prior to

the effective filing date of this application, which describes this drink and/or has not provided any personal declaration setting forth any facts. Thus, the Examiner has failed to make out a prima facie case of obviousness. Second, the Examiner has not explained how the alleged fifty-fifty mix of cider and beer teaches or suggests the method steps called for in claims 40 and 42. Third, there is no evidence of record that "Snakebite" was a drink created prior to Applicants' invention. If the Examiner wishes to maintain this rejection, he is hereby requested to provide Applicant with an appropriate prior art reference or a personal declaration.

The Examiner's commentary with respect to In re Levin is noted. The law applies uniformly to all inventions and the patentability thereof (and recipes, like any other combination invention are no different simply because they relate to food, are to be treated no differently). The Examiner's proposed reading of the Levin decision is inconsistent with a far larger and more authoritative body of law that speaks to the misconception that to be non-obvious, an invention somehow or other requires

the position that the presence of synergism is not

essential to a finding of non-obviousness, but (and more to the point in negating the Examiner's Levin interpretation), the absence of synergy has no place in any evaluation of obviousness. See Merck v. Biocraft Labs, 10 USPQ 2d 1843, 1847 (Fed. Cir. 1989). The non-obviousness of the present invention is properly evidenced in the arguments presented above.

For the foregoing reasons, the instant application is believed to be in condition for allowance. Such allowance is respectfully solicited.

Should the Examiner decide to maintain any of the rejections of record, the instant Amendment should be entered since the amendments to the claims are made solely to eliminate the rejections under 35 U.S.C. 112, first and second paragraphs, and reduce the issues for appeal. Under these circumstances, the amendments to the claims could not raise any issue which would require further consideration and/or search by the Examiner.

Should the Examiner believe an additional amendment is needed to place the application in condition for allowance, he is invited to contact Applicant's attorney at the

appeal are appended hereto.

Enclosed herewith is a check in the amount of \$720.00 to cover the fee for the two month extension of time and the appeal fee. Should the Commissioner determine that an additional fee is due, he is hereby authorized to charge said fee to Deposit Account No. 02-0184.

Respectfully submitted,

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MARKED UP COPY OF AMENDED CLAIMS

40. (Amended) A method [comprising] for preparing a fermented beverage [of the beer type] including a beer from a beer wort, [and] said method comprising a preparing step including the step of adding pectin E 440 in a predetermined proportion in order to inhibit coagulation and precipitation of proteins so as to obtain at least one of a persistent irreversible haze which remains at [room] a temperature of 15°C and of a reversible haze which remains at [low] a temperature below 12°C and disappears at [room temperature] 15°C, said persistent irreversible haze and said reversible haze each having respective predetermined characteristics in terms of intensity and persistence over time in the event of storage.

43. (Amended) A method according to claim 40, further comprising adding said pectin in a proportion of between [about] 10 mg/l and [about] 1000 mg/l.

44. (Amended) A method according to claim 43, wherein said

45. (Amended) A method according to claim 43, wherein said adding step comprises adding said pectin in a proportion on the order of from 100 mg/l to [about] 300 mg/l.

46. (Amended) A method according to claim 40, further comprising adding said pectin in a proportion of between [about] 5 mg/l and [about] 2000 mg/l of wort or of beer.

48. (Amended) A method according to claim 40, further comprising adding said pectin in a nature and a quantity and under conditions which create [protein] beer particles having a mean diameter of [about] 0.3 μm .

49. (Amended) Fermented beverage [of the beer type] including a beer prepared from a beer wort, characterized in that said beverage is prepared using the method according to claim 40.

50. (Amended) A method [comprising] for preparing a fermented beverage [of a] including a beer [type] from a beer wort, [and] said method comprising a preparing step

which comprises adding said pectin to the beer wort during the beer making and in the finished beer.

52. (Amended) A method according to claim 50 wherein said adding step comprises adding said pectin in a proportion of between [about] 10 mg/l and [about] 1000 mg/l.

53. (Amended) A method according to claim 50 wherein said adding step comprises adding said pectin in a proportion of between [about] 50 mg/l and [about] 500 mg/l.

54. (Amended) A method according to claim 50 wherein said adding step comprises adding said pectin in a proportion of between [about] 100 mg/l to [about] 300 mg/l.

55. (Amended) A method according to claim 50 wherein said adding step comprises adding said pectin in a proportion of between [about] 5 mg/l and [about] 2000 mg/l of wort or of beer.

56. (Amended) A method [comprising] for preparing a fermented beverage [of the] including a beer [type] from a beer wort, [and] said method comprising a preparing step

reversible haze during the beer making and in the finished beer.

58. (Amended) A method according to claim 56 wherein said adding step comprises adding said pectin in a proportion of between [about] 10 mg/l and [about] 1000 mg/l.

59. (Amended) A method according to claim 56 wherein said adding step comprises adding said pectin in a proportion of between [about] 50 mg/l and [about] 500 mg/l.

60. (Amended) A method according to claim 56 wherein said adding step comprises adding said pectin in a proportion of between [about] 100 mg/l to [about] 300 mg/l.

61. (Amended) A method according to claim 56 wherein said adding step comprises adding said pectin in a proportion of between [about] 5 mg/l and [about] 2000 mg/l of wort or of beer.